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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,584	07/16/2003	Dong-Gyu Kim	SEC.310D3	7434

7590 07/26/2005

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Reston, VA 20191

EXAMINER

TON, MINH TOAN T

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No.

10/619,584

Applicant(s)

KIM ET AL.

Examiner

Toan Ton

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 36-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 36-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 08/895447.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 36, 38 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al (US 5969779).

Kim discloses a liquid crystal display device comprising: an insulating substrate 21; a first signal (gate) line including a gate electrode and formed on the insulating substrate; a second (repair) line 100/200 formed on the insulating substrate; a gate insulating layer 24 covering the first and second signal lines; a semiconductor layer 25 formed on the gate insulating layer; a third (data) line overlapping the first (gate) and the second (repair) signal lines (see at least abstract, lines 3-4); a drain electrode 28 and a source electrode 27 formed on the semiconductor layer, wherein the third(data) line is connected to the source electrode; a protective layer 29 having a contact hole exposing the drain electrode over the second signal line; the pixel electrode connected to the drain electrode through the contact hole; wherein the first (gate) and second (repair) signal lines are adapted to receive at least a same gate signal (inherent due to the repair line comprising line-portion that connected parallel to the gate line).

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Kim discloses the gate insulating layer 24 formed above the second (repair) signal line, i.e. the drain electrode extended over the second (repair) signal line.

Kim discloses a connection portion 300 connected to the second (repair) signal line.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 37, 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al (US 5969779), as applied to claims 36, 38-39, and further in view of Takemura (US 5757444) and Ito et al (US 5936685).

Forming the pixel electrode overlapping the bus lines is known in the art for yielding advantages such as large aperture (display area) ratio. Takemura/Ito discloses the pixel electrode overlapping bus lines for achieving advantages such as large aperture (display area) ratio. Therefore, it would have been obvious to one of ordinary skill in the art to form the pixel electrode overlapping the bus lines (gate or/and data lines), as known in the art, for yielding advantages such as large aperture (display area) ratio.

3. Claims 36, 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawate (US 4368523) in view of Wakai (US 5327001).

Kawate discloses a liquid crystal display device comprising (see at least Figures 2-3): an insulating substrate 100; a first signal (gate) line A1/A2/Am including a gate electrode and formed on the insulating substrate; a second signal line a1/a2/am formed on the insulating substrate; a gate insulating layer (not shown) inherently covering the first and second signal lines; a semiconductor layer (not shown) formed on the gate insulating layer; a third (data) signal line B1/B2/BM overlapping the first (gate) and the second (repair) signal lines, wherein the third(data) line is inherently connected to the source electrode; the first (gate) and second signal lines are adapted to receive at least a same gate signal [see at least col. 6, lines 22-24].

Basic/inherent elements such as a gate insulating layer, a semiconductor layer, a drain electrode, a source electrode, a protective layer having a contact hole exposing the drain electrode, a pixel electrode connected to the drain electrode through a contact hole are common and known in TFT (active matrix)-LCD devices. Wakai discloses a conventional TFT-LCD device comprising basic/inherent elements such as a gate insulating layer, a semiconductor layer, a drain electrode, and a source electrode. Wakai discloses the LCD device comprising a protective layer having a contact hole exposing the drain electrode, a pixel electrode connected to the drain electrode through a contact hole for achieving advantages such as minimizing/preventing short circuit to the device. Therefore, it would have been at least obvious to one of ordinary skill in the art to employ basic/inherent elements such as a gate insulating layer, a semiconductor layer, a drain electrode, a source electrode, a protective layer having a contact hole exposing the drain electrode, a pixel electrode connected to the drain electrode through a contact hole, as common and known in TFT (active matrix)-LCD devices, and also for achieving advantages such as minimizing/preventing short circuit to the device.

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Kawate discloses the second signal line comprising line-portions overlapping the third (data) signal line [see at least Figure 3].

Kawate discloses a connection portion 5 connected to the second signal line a1/a2/am.

4. Claims 37, 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawate in view of Wakai, as applied to claims 36, 38-39 above, and further in view of Takemura (US 5757444) and Ito et al (US 5936685).

See detailed explanations above pertaining to these above.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 36-41 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

#### ***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Ton whose telephone number is (571) 272-2303.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 22, 2005

  
TOANTON  
PRIMARY EXAMINER

# INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Applicant(s)

Dong-Gyu KIM et al.

Filing Date

July 16, 2003

Group Art Unit

To Be Assigned

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	A	5,969,779	10/1999	KIM et al.			
	B	5,859,679	1/1999	SONG et al.			
	C	5,729,309	3/1998	NA et al.			
	D	5,285,301	2/1994	SHIRAHASHI et al.			
	E	4,368,523	1/1983	KAWATE			
	F	5,767,929	6/1998	YACHI et al.			

## FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)


EXAMINER

5/14/03

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



<b>Notice of References Cited</b>	Application/Control No. 10/619,584	Applicant(s)/Patent Under Reexamination KIM ET AL.	
	Examiner Toan Ton	Art Unit 2871	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,682,211	10-1997	Yao et al.	349/38
	B	US-5,757,444	05-1998	Takemura, Yasuhiko	349/38
	C	US-5,936,685	08-1999	Ito et al.	349/38
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
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**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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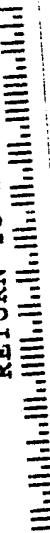
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